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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,120	07/18/2001	Dana Ault-Riche	25885-1751	1666

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HELLER EHRMAN LLP
4350 LA JOLLA VILLAGE DRIVE
7TH FLOOR
SAN DIEGO, CA 92122-1246

EXAMINER	
TRAN, MY CHAU T	

ART UNIT	PAPER NUMBER
1639	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 09/910,120	**Applicant(s)** AULT-RICHE ET AL.	
	Examiner MY-CHAU T. TRAN	**Art Unit** 1639	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 08 February 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: *NONE*.
   Claim(s) objected to: *NONE*.
   Claim(s) rejected: *1-23,25-37,49-54,93-95 and 99-102*.
   Claim(s) withdrawn from consideration: *NONE*.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See attached sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____.

ADVISORY ACTION (CONT.)

Response to Arguments

1. Applicant's request for reconsideration because "*it appears that the Examiner has failed to consider a significant element of all of the claims: that the combination contain: a) a collection of capture agents that specifically bind to preselected polypeptides; and b) a collection of oligonucleotides that encode the preselected polypeptides to which the capture agents specifically bind.*" It is respectfully submitted that the examiner has considered the limitation of the claimed combination, i.e. "*a) a collection of capture agents that specifically bind to preselected polypeptides; and b) a collection of oligonucleotides that encode the preselected polypeptides to which the capture agents specifically bind*" as addressed in the Advisory mailed 02/08/2006 and reiterated below.

2. Applicant's arguments directed to the rejection under 35 USC 102(b) as being anticipated by Lerner et al. (US Patent 5,573,905) for claims 1-9, 11-23, 25-36, 93 and 94 were considered but they are not persuasive for the following reasons.

Applicant alleges that the reference of Lerner et al. does not anticipate the presently claimed invention because '*Lerner et al. does not disclose a combination of two collections: a collection of capture agents and a collection of oligonucleotides where the members of the collection of capture agents that bind to preselected polypeptides and the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind.*' Thus, the reference of Lerner et al. does not anticipate the presently claimed invention.

Applicant's arguments are not convincing since the teachings of Lerner et al. do anticipate the invention of the instant claims. It is the examiner position that the teachings of

Lerner et al. do disclose a combination of two collections wherein one collection is a collection of capture agents and the other collection is a collection of oligonucleotides.

First, Lerner et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides. Lerner et al. discloses a binding reaction admixture wherein the admixture comprises a 'mixture' of biological active molecule (refers to the instant claimed collection of capture agents) and a 'mixture' of the encoded combinatorial library (refers to the instant claimed collection of oligonucleotides)(see e.g. col. 15, lines 34-40) wherein each composition of the library comprises a chemical polymer and an identifier nucleotide sequences that defines the structure of the chemical polymer, and the binding reaction complexes (see e.g. col. 2, lines 45-67; col. 3, line 26-40; col. 4, line 10 thru col. 8, line 53; col. 9, lines 40-55; col. 15, lines 15-57). The composition (refers to instant claimed set of oligonucleotide) comprises the identifier nucleotide sequences, a linker molecule, and a chemical polymer (see e.g. col. 3, lines 15-20; col. 4, lines 18-27; col. 4, line 29 thru col. 8, line 53; col. 11, line 61 thru col. 13, line 12). The chemical polymer includes polymer such as peptide polymers see e.g. col. 4, lines 37-52; col. 8, line 63 thru col. 9, line 14). Thus, Lerner et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides.

Second, Lerner et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'. Lerner et al. disclose that the biological active molecule binds to the chemical polymer of the encoded combinatorial library (refers to the functional limitation that the '*capture agents bind to preselected polypeptides*')(see e.g. col. 15,

lines 34-40). Thus, Lerner et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'.

Third, Lerner et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'. Lerner et al. disclose that wherein each composition of the encoded combinatorial library comprises a chemical polymer and an identifier nucleotide sequences that defines the structure of the chemical polymer, and the binding reaction complexes (see e.g. col. 2, lines 45-67; col. 3, line 26-40; col. 4, line 10 thru col. 8, line 53; col. 9, lines 40-55; col. 15, lines 15-57). Furthermore, Lerner et al. teaches that the unit nucleotide sequences within the oligonucleotide corresponds to the chemical unit of the polymer, i.e. each unit of nucleotide sequences corresponds to a specific amino acid in the polypeptide (see e.g. col. 5, lines 49-54; fig. 2). In figure 2, the amino acid glycine has a corresponding unit of nucleotide sequences of CACATG, and the amino acid methionine has a corresponding unit of nucleotide sequences of ACGGTA. Thus, Lerner et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'.

Therefore, the teachings of Lerner et al. do anticipate the invention of the instant claims, and the rejection is maintained.

3. Applicant's arguments directed to the rejection under 35 USC 102(b) as being anticipated by Dower et al. (US Patent 5,639,603) for claims 1, 2, 11, 12, 25, 26, 36, 49-51, and 99 were considered but they are not persuasive for the following reasons.

Applicant argues that the reference of Dower et al. does not anticipate the presently claimed invention because '*Dower et al. fails to disclose a combination that contains two collections: (a) a collection of capture compounds that bind to preselected polypeptides; and (b) a collection of oligonucleotides that encode the preselected polypeptides.*' Thus, the reference of Dower et al. does not anticipate the presently claimed invention.

Applicant's arguments are not convincing since the teachings of Dower et al. do anticipate the invention of the instant claims. It is the examiner position that the teachings of Dower et al. do disclose a combination of two collections wherein one collection is a collection of capture agents and the other collection is a collection of oligonucleotides.

First, Dower et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides. Dower et al. discloses a 'mixture' of the combinatorial library (refers to the instant claimed collection of oligonucleotides) and a binding reaction admixture wherein the admixture comprises a 'mixture' of receptors (refers to the instant claimed collection of capture agents) (see e.g. col. 31, lines 54-60). The encoded synthetic chemical libraries (refers to instant claimed set of oligonucleotide) comprise beads, identifier tags, and oligomer (see e.g. col. 3, line 66 to col. 4, line 18; col. 9, lines 13-27; col. 23, lines 10-46; col. 26, lines 12-42; col. 44, line 61 to col. 45, line 39). The identifier tags are oligonucleotides (see e.g. col. 16, lines 15-24, and lines 48-63). The oligomer comprises a plurality of different peptide sequences (see e.g. col. 9, lines 13-27; col. 23, lines 10-46; col. 26, lines 12-42). Thus, Dower et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides.

Second, Dower et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'. Dower et al. disclose that the receptors bind to oligomer of the encoded combinatorial library (refers to the functional limitation that the '*capture agents bind to preselected polypeptides*')(see e.g. col. 8, lines 23-46; col. 31, lines 11-27, and lines 36-40). Thus, Dower et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'.

Third, Dower et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'. Dower et al. teaches that the unit nucleotide sequences within the oligonucleotide corresponds to the chemical unit of the polymer, i.e. each unit of nucleotide sequences corresponds to a specific amino acid in the polypeptide (see e.g. col. 18, lines 13-27; col. 45, line 62 thru col. 46, line 6). In example 1, the amino acid valine has the corresponding dinucleotide sequences of TT, and the amino acid arginine has the corresponding unit of nucleotide sequences of TA (see e.g. col. 45, line 62 thru col. 46, line 6; col. 46, lines 47-67). Thus, Dower et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'.

Therefore, the teachings of Dower et al. do anticipate the invention of the instant claims and the rejection is maintained.

4. Applicant's arguments directed to the rejection under 35 USC 102(b) as being anticipated by Lerner et al. (US Patent 5,573,905) for claim 100 were considered but they are not persuasive for the following reasons.

Applicant contends that the reference of Lerner et al. does not anticipate the presently claimed invention because '*Lerner et al. does not disclose a combination of two collections: a collection of capture agents and a collection of oligonucleotides where the members of the collection of capture agents that bind to preselected polypeptides and the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind.*' Thus, the reference of Lerner et al. does not anticipate the presently claimed invention.

Applicant's arguments are not convincing since the teachings of Lerner et al. do anticipate the invention of the instant claims. It is the examiner position that the teachings of Lerner et al. do disclose a combination of two collections wherein one collection is a collection of captures agents and the other collection is a collection of oligonucleotides.

First, Lerner et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides. Lerner et al. discloses a binding reaction admixture wherein the admixture comprises a 'mixture' of biological active molecule (refers to the instant claimed collection of capture agents) and a 'mixture' of the encoded combinatorial library (refers to the instant claimed collection of oligonucleotides)(see e.g. col. 15, lines 34-40) wherein each composition of the library comprises a chemical polymer and an identifier nucleotide sequences that defines the structure of the chemical polymer, and the binding reaction complexes (see e.g. col. 2, lines 45-67; col. 3, line 26-40; col. 4, line 10 thru col. 8, line 53; col. 9, lines 40-55; col. 15, lines 15-57). The composition (refers to instant claimed set of oligonucleotide) comprises the identifier nucleotide sequences, a linker molecule, and a chemical polymer (see e.g. col. 3, lines 15-20; col. 4, lines 18-27; col. 4, line 29 thru col. 8, line 53; col. 11, line 61 thru col. 13, line 12). The chemical polymer includes polymer such as peptide

polymers see e.g. col. 4, lines 37-52; col. 8, line 63 thru col. 9, line 14). Thus, Lerner et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides.

Second, Lerner et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'. Lerner et al. disclose that the biological active molecule binds to the chemical polymer of the encoded combinatorial library (refers to the functional limitation that the '*capture agents bind to preselected polypeptides*')(see e.g. col. 15, lines 34-40). Thus, Lerner et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'.

Third, Lerner et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'. Lerner et al. disclose that wherein each composition of the encoded combinatorial library comprises a chemical polymer and an identifier nucleotide sequences that defines the structure of the chemical polymer, and the binding reaction complexes (see e.g. col. 2, lines 45-67; col. 3, line 26-40; col. 4, line 10 thru col. 8, line 53; col. 9, lines 40-55; col. 15, lines 15-57). Furthermore, Lerner et al. teaches that the unit nucleotide sequences within the oligonucleotide corresponds to the chemical unit of the polymer, i.e. each unit of nucleotide sequences corresponds to a specific amino acid in the polypeptide (see e.g. col. 5, lines 49-54; fig. 2). In figure 2, the amino acid glycine has a corresponding unit of nucleotide sequences of CACATG, and the amino acid methionine has a corresponding unit of nucleotide sequences of ACGGTA. Thus, Lerner et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'.

Therefore, the teachings of Lerner et al. do anticipate the invention of the instant claims, and the rejection is maintained.

5. Applicant's arguments directed to the rejection under 35 USC 102(b) as being anticipated by Dower et al. (US Patent 5,639,603) for claim 101 were considered but they are not persuasive for the following reasons.

Applicant argues that the reference of Dower et al. does not anticipate the presently claimed invention because '*Dower et al. fails to disclose a combination that contains two collections: (a) a collection of capture compounds that bind to preselected polypeptides; and (b) a collection of oligonucleotides that encode the preselected polypeptides.*' Thus, the reference of Dower et al. does not anticipate the presently claimed invention.

Applicant's arguments are not convincing since the teachings of Dower et al. do anticipate the invention of the instant claims. It is the examiner position that the teachings of Dower et al. do disclose a combination of two collections wherein one collection is a collection of captures agents and the other collection is a collection of oligonucleotides.

First, Dower et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides. Dower et al. discloses a 'mixture' of the combinatorial library (refers to the instant claimed collection of oligonucleotides) and a binding reaction admixture wherein the admixture comprises a 'mixture' of receptors (refers to the instant claimed collection of capture agents) (see e.g. col. 31, lines 54-60). The encoded synthetic chemical libraries (refers to instant claimed set of oligonucleotide) comprise beads, identifier tags, and oligomer (see e.g. col. 3, line 66 to col. 4, line 18; col. 9, lines 13-27; col. 23,

lines 10-46; col. 26, lines 12-42; col. 44, line 61 to col. 45, line 39). The identifier tags are oligonucleotides (see e.g. col. 16, lines 15-24, and lines 48-63). The oligomer comprises a plurality of different peptide sequences (see e.g. col. 9, lines 13-27; col. 23, lines 10-46; col. 26, lines 12-42). Thus, Dower et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides.

Second, Dower et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'. Dower et al. disclose that the receptors bind to oligomer of the encoded combinatorial library (refers to the functional limitation that the '*capture agents bind to preselected polypeptides*')(see e.g. col. 8, lines 23-46; col. 31, lines 11-27, and lines 36-40). Thus, Dower et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'.

Third, Dower et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'. Dower et al. teaches that the unit nucleotide sequences within the oligonucleotide corresponds to the chemical unit of the polymer, i.e. each unit of nucleotide sequences corresponds to a specific amino acid in the polypeptide (see e.g. col. 18, lines 13-27; col. 45, line 62 thru col. 46, line 6). In example 1, the amino acid valine has the corresponding dinucleotide sequences of TT, and the amino acid arginine has the corresponding unit of nucleotide sequences of TA (see e.g. col. 45, line 62 thru col. 46, line 6; col. 46, lines 47-67). Thus, Dower et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'.

Therefore, the teachings of Dower et al. do anticipate the invention of the instant claims and the rejection is maintained.

6. Applicant's arguments directed to the rejection under 35 USC 103(a) as being unpatentable over Lerner et al. (US Patent 5,573,905) and Dower et al. (US Patent 5,639,603) for claims 1-9, 11-23, 25-36, 49-51, and 93-95 were considered but they are not persuasive for the following reasons.

Applicant alleges that the combine teaching of Lerner et al. and Dower et al. is not obvious over the instant claimed invention because '*neither Lerner et al. nor Dower et al. teaches or suggests a combination that contains two collections where one collection is a collection of capture agents that bind to preselected polypeptides and the other is a collection of oligonucleotides that encode the polypeptides to which the capture agents bind.*' Thus, the combine teaching of Lerner et al. and Dower et al. is not obvious over the instant claimed invention.

Applicant's arguments are not convincing since the combine teachings of Lerner et al. and Dower et al. do render the invention of the instant claims *prima facie* obvious. It is the examiner position that both Lerner et al. and Dower et al. do disclose a combination of two collections wherein one collection is a collection of captures agents and the other collection is a collection of oligonucleotides.

First, both Lerner et al. and Dower et al. do disclose do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides. Lerner et al. discloses a binding reaction admixture wherein the admixture comprises a 'mixture' of biological

active molecule (refers to the instant claimed collection of capture agents) and a 'mixture' of the encoded combinatorial library (refers to the instant claimed collection of oligonucleotides)(see e.g. col. 15, lines 34-40) wherein each composition of the library comprises a chemical polymer and an identifier nucleotide sequences that defines the structure of the chemical polymer, and the binding reaction complexes (see e.g. col. 2, lines 45-67; col. 3, line 26-40; col. 4, line 10 thru col. 8, line 53; col. 9, lines 40-55; col. 15, lines 15-57). The composition (refers to instant claimed set of oligonucleotide) comprises the identifier nucleotide sequences, a linker molecule, and a chemical polymer (see e.g. col. 3, lines 15-20; col. 4, lines 18-27; col. 4, line 29 thru col. 8, line 53; col. 11, line 61 thru col. 13, line 12). The chemical polymer includes polymer such as peptide polymers see e.g. col. 4, lines 37-52; col. 8, line 63 thru col. 9, line 14). Dower et al. discloses a 'mixture' of the combinatorial library (refers to the instant claimed collection of oligonucleotides) and a binding reaction admixture wherein the admixture comprises a 'mixture' of receptors (refers to the instant claimed collection of capture agents) (see e.g. col. 31, lines 54-60). The encoded synthetic chemical libraries (refers to instant claimed set of oligonucleotide) comprise beads, identifier tags, and oligomer (see e.g. col. 3, line 66 to col. 4, line 18; col. 9, lines 13-27; col. 23, lines 10-46; col. 26, lines 12-42; col. 44, line 61 to col. 45, line 39). The identifier tags are oligonucleotides (see e.g. col. 16, lines 15-24, and lines 48-63). The oligomer comprises a plurality of different peptide sequences (see e.g. col. 9, lines 13-27; col. 23, lines 10-46; col. 26, lines 12-42). Thus, both Lerner et al. and Dower et al. do disclose do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides.

Second, both Lerner et al. and Dower et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'. Lerner et al. disclose that the biological active molecule binds to the chemical polymer of the encoded combinatorial library (refers to the functional limitation that the '*capture agents bind to preselected polypeptides*')(see e.g. col. 15, lines 34-40). Dower et al. disclose that the receptors bind to oligomer of the encoded combinatorial library (refers to the functional limitation that the '*capture agents bind to preselected polypeptides*')(see e.g. col. 8, lines 23-46; col. 31, lines 11-27, and lines 36-40). Thus, both Lerner et al. and Dower et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'.

Third, both Lerner et al. and Dower et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'. Lerner et al. disclose that wherein each composition of the encoded combinatorial library comprises a chemical polymer and an identifier nucleotide sequences that defines the structure of the chemical polymer, and the binding reaction complexes (see e.g. col. 2, lines 45-67; col. 3, line 26-40; col. 4, line 10 thru col. 8, line 53; col. 9, lines 40-55; col. 15, lines 15-57). Furthermore, Lerner et al. teaches that the unit nucleotide sequences within the oligonucleotide corresponds to the chemical unit of the polymer, i.e. each unit of nucleotide sequences corresponds to a specific amino acid in the polypeptide (see e.g. col. 5, lines 49-54; fig. 2). In figure 2, the amino acid glycine has a corresponding unit of nucleotide sequences of CACATG, and the amino acid methionine has a corresponding unit of nucleotide sequences of ACGGTA. Dower et al. teaches that the unit nucleotide sequences within the oligonucleotide corresponds to the chemical unit of the polymer, i.e. each unit of nucleotide sequences corresponds to a specific

amino acid in the polypeptide (see e.g. col. 18, lines 13-27; col. 45, line 62 thru col. 46, line 6). In example 1, the amino acid valine has the corresponding dinucleotide sequences of TT, and the amino acid arginine has the corresponding unit of nucleotide sequences of TA (see e.g. col. 45, line 62 thru col. 46, line 6; col. 46, lines 47-67). Thus, both Lerner et al. and Dower et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'.

Therefore, the combine teachings of Lerner et al. and Dower et al. do render the invention of the instant claims *prima facie* obvious and the rejection is maintained.

7. Applicant's arguments directed to the rejection under 35 USC 103(a) as being unpatentable over Lerner et al. (US Patent 5,573,905) and Iris et al. (US Patent 6,403,309 B1) for claims 1-9, 11-23, 25-36, 49-54, and 93-95 were considered but they are not persuasive for the following reasons.

Applicant argues that the combine teaching of Lerner et al. and Iris et al. is not obvious over the instant claimed invention because neither Lerner et al. nor Iris et al. '*teaches or suggests a collection of capture agents that bind to preselected polypeptides and collection of oligonucleotides that encode the preselected polypeptides.*' Thus, the combine teaching of Lerner et al. and Iris et al. is not obvious over the instant claimed invention.

Applicant's arguments are not convincing since the combine teachings of Lerner et al. and Iris et al. do render the invention of the instant claims *prima facie* obvious. It is the examiner position that the teachings of Lerner et al. do disclose a combination of two collections

wherein one collection is a collection of captures agents and the other collection is a collection of oligonucleotides.

First, Lerner et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides. Lerner et al. discloses a binding reaction admixture wherein the admixture comprises a 'mixture' of biological active molecule (refers to the instant claimed collection of capture agents) and a 'mixture' of the encoded combinatorial library (refers to the instant claimed collection of oligonucleotides)(see e.g. col. 15, lines 34-40) wherein each composition of the library comprises a chemical polymer and an identifier nucleotide sequences that defines the structure of the chemical polymer, and the binding reaction complexes (see e.g. col. 2, lines 45-67; col. 3, line 26-40; col. 4, line 10 thru col. 8, line 53; col. 9, lines 40-55; col. 15, lines 15-57). The composition (refers to instant claimed set of oligonucleotide) comprises the identifier nucleotide sequences, a linker molecule, and a chemical polymer (see e.g. col. 3, lines 15-20; col. 4, lines 18-27; col. 4, line 29 thru col. 8, line 53; col. 11, line 61 thru col. 13, line 12). The chemical polymer includes polymer such as peptide polymers see e.g. col. 4, lines 37-52; col. 8, line 63 thru col. 9, line 14). Thus, Lerner et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides.

Second, Lerner et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'. Lerner et al. disclose that the biological active molecule binds to the chemical polymer of the encoded combinatorial library (refers to the functional limitation that the '*capture agents bind to preselected polypeptides*')(see e.g. col. 15,

lines 34-40). Thus, Lerner et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'.

Third, Lerner et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'. Lerner et al. disclose that wherein each composition of the encoded combinatorial library comprises a chemical polymer and an identifier nucleotide sequences that defines the structure of the chemical polymer, and the binding reaction complexes (see e.g. col. 2, lines 45-67; col. 3, line 26-40; col. 4, line 10 thru col. 8, line 53; col. 9, lines 40-55; col. 15, lines 15-57). Furthermore, Lerner et al. teaches that the unit nucleotide sequences within the oligonucleotide corresponds to the chemical unit of the polymer, i.e. each unit of nucleotide sequences corresponds to a specific amino acid in the polypeptide (see e.g. col. 5, lines 49-54; fig. 2). In figure 2, the amino acid glycine has a corresponding unit of nucleotide sequences of CACATG, and the amino acid methionine has a corresponding unit of nucleotide sequences of ACGGTA. Thus, Lerner et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'.

Therefore, the combine teachings of Lerner et al. and Iris et al. do render the invention of the instant claims *prima facie* obvious and the rejection is maintained.

8. Since applicant's provided no argument(s) directed to the rejection under 35 USC 103(a) as being unpatentable over Lerner et al. (US Patent 5,573,905) for claim 100, the rejection is maintained.

9. Applicant's arguments directed to the rejection under 35 USC 103(a) as being unpatentable over Dower et al. (US Patent 5,639,603) and Cheung (US Patent 5,132,242) for claims 101 and 102 were considered but they are not persuasive for the following reasons.

Applicant alleges that the combine teaching of Dower et al. and Cheung is not obvious over the instant claimed invention because neither Dower et al. nor Cheung '*teaches or suggests a collection of capture agents that bind to preselected polypeptides and collection of oligonucleotides that encode the preselected polypeptides.*' Thus, the combine teaching of Dower et al. and Cheung is not obvious over the instant claimed invention.

Applicant's arguments are not convincing since the combine teachings of Dower et al. and Cheung do render the invention of the instant claims *prima facie* obvious. It is the examiner position that the teachings of Dower et al. do disclose a combination of two collections wherein one collection is a collection of captures agents and the other collection is a collection of oligonucleotides.

First, Dower et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides. Dower et al. discloses a 'mixture' of the combinatorial library (refers to the instant claimed collection of oligonucleotides) and a binding reaction admixture wherein the admixture comprises a 'mixture' of receptors (refers to the instant claimed collection of capture agents) (see e.g. col. 31, lines 54-60). The encoded synthetic chemical libraries (refers to instant claimed set of oligonucleotide) comprise beads, identifier tags, and oligomer (see e.g. col. 3, line 66 to col. 4, line 18; col. 9, lines 13-27; col. 23, lines 10-46; col. 26, lines 12-42; col. 44, line 61 to col. 45, line 39). The identifier tags are oligonucleotides (see e.g. col. 16, lines 15-24, and lines 48-63). The oligomer comprises a

plurality of different peptide sequences (see e.g. col. 9, lines 13-27; col. 23, lines 10-46; col. 26, lines 12-42). Thus, Dower et al. do disclose a combination of two collections, i.e. a collection of capture agents and a collection of oligonucleotides.

Second, Dower et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'. Dower et al. disclose that the receptors bind to oligomer of the encoded combinatorial library (refers to the functional limitation that the '*capture agents bind to preselected polypeptides*')(see e.g. col. 8, lines 23-46; col. 31, lines 11-27, and lines 36-40). Thus, Dower et al. do disclose the limitation that the '*members of the collection of capture agents that bind to preselected polypeptides*'.

Third, Dower et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'. Dower et al. teaches that the unit nucleotide sequences within the oligonucleotide corresponds to the chemical unit of the polymer, i.e. each unit of nucleotide sequences corresponds to a specific amino acid in the polypeptide (see e.g. col. 18, lines 13-27; col. 45, line 62 thru col. 46, line 6). In example 1, the amino acid valine has the corresponding dinucleotide sequences of TT, and the amino acid arginine has the corresponding unit of nucleotide sequences of TA (see e.g. col. 45, line 62 thru col. 46, line 6; col. 46, lines 47-67). Thus, Dower et al. do disclose the limitation that the '*the collection of oligonucleotides encode the preselected polypeptides to which the capture agents bind*'.

Therefore, the combine teachings of Dower et al. and Cheung do render the invention of the instant claims *prima facie* obvious and the rejection is maintained.

In addition, it is noted that there is an inadvertent error in the citation of the arts use for this rejection, i.e. the art cited are '*Dower et al. (US Patent 5,639,603) and Furka et al. (WO 93/24,517)*' instead of '*Dower et al. (US Patent 5,639,603) and Cheung (US Patent 5,132,242)*'. The examiner apologizes for any inconvenience.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Chau T. Tran whose telephone number is 571-272-0810. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Wang can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mct
March 15, 2006

ANDREW WANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600